

*Reply Declaration of Arthur S. Menko,  
John McCloskey & Thomas L. Brand  
On Behalf of AT&T Corp.*

*TELRIC NPRM  
WC Docket No. 03-173*

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Review of the Commission's Rules Regarding	)	
the Pricing of Unbundled Network Elements	)	WC Docket No. 03-173
and the Resale of Service by Incumbent Local	)	
Exchange Carriers	)	

**REPLY DECLARATION OF  
ARTHUR S. MENKO, JOHN MCCLOSKEY AND THOMAS L. BRAND**

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**I. QUALIFICATIONS.**

**A. Arthur S. Menko**

1. My name is Arthur S. Menko. My business address is 63 W. Lancaster Avenue, Ardmore, PA.

2. I am currently President of Business Planning, Inc., a firm that provides international consulting services related to the telecommunications industry, including financial analysis, survey and database services, market planning and performance metrics. I have worked at Business Planning since 1985, primarily preparing analyses related to competition and regulation for the telecommunications industry. From 1983-1985, I was a Senior Economist at Chase Econometrics, producing communications industry forecasts and developing econometric models for regulatory and ratemaking purposes. From 1978-1982, I worked as Forecast Manager for New York Telephone. I received a B.A. in Economics from Lehigh University and an M.B.A. in Economics and Finance from New York University.

**B. John McCloskey**

3. My name is John McCloskey. My business address is 646 Hillcrest Avenue, Westfield, NJ 07090.

4. I have over twenty-five years of experience in the fields of cost allocation, affiliated interest transactions, accounting and performance analysis for the regulated telephone companies in the United States. In particular, I have worked extensively on issues relating to the pricing of unbundled network elements (“UNEs”), billing and accounting for access charges between local and long distance companies, profitability for price cap carriers, Universal Service Fund funding and jurisdictional separations. From 1977 to 1989, I served as Director, Cost Allocation and Financial Management for New Jersey Bell Telephone Company. From 1990 to the present time, I have worked independently and through firms such as Business Planning, Inc. on a wide range of cost allocation, benchmarking and financial projects for telecommunications companies. I have a B.A. and an M.S. in Engineering and Business Administration from Dartmouth College.

**C. Thomas L. Brand**

5. My name is Thomas L. Brand. My business address is 49 Parkview Terrace, Summit, NJ 07901.

6. I have extensive experience in financial, regulatory and cost issues in the telecommunications industry. I have provided expert testimony on numerous occasions before the Federal Communications Commission and state commissions. Since 2002, I have worked as a consultant focusing on competition, regulation, strategy development and implementation, business planning and financial analysis for the telecommunications industry. Prior to 2002, I worked for over twenty-five years with AT&T and Bell Laboratories, where the positions I held

included Senior Policy Analyst, Law and Government Affairs (1998-2001), District Manager, Law and Public Policy (1988-1998), Senior Financial Analyst, Financial Analyses of Communications Services (1986-1988), District Manager, Financial Methodology (1983-1986) and District Manager, Exchange Cost Studies (1981-1983). I have Bachelor of Electrical Engineering degree from City College of New York, an M.S. in Electrical Engineering from Columbia University, an M.S. in Statistics from Rutgers, and an M.B.A. from The Wharton School, University of Pennsylvania.

## **II. PURPOSE AND SUMMARY OF CONCLUSIONS**

7. We have been asked to evaluate the Declaration of Patrick A. Garzillo (“Garzillo Decl.”), filed as part of the Comments of the Verizon Telephone Companies on December 16, 2003. Using data from the FCC’s Automated Reporting Management Information System (“ARMIS”), Mr. Garzillo’s analysis purports to show that UNE rates have failed to provide adequate compensation to cover the historical costs of four Verizon companies (in Massachusetts, New Jersey, New York and Pennsylvania) and that this shortfall will increase in the future.

8. At the outset, it should be recognized that the ARMIS embedded cost data on which Mr. Garzillo relies are close to irrelevant for estimating forward-looking costs. Indeed, as we describe, the RBOCs themselves have recently cautioned about the limitations on the use of such data – even to determine embedded service costs. We elaborate on these points in Sections III and IV, below.

9. Even assuming ARMIS data were relevant, Mr. Garzillo’s analysis is demonstrably flawed and therefore cannot be relied upon, as we show in Section IV below. Mr. Garzillo’s analysis relies upon numerous assumptions, data selections, methods and calculations,

many of which are clearly faulty. For example, many of the data relationships relied upon by Mr. Garzillo – developed from jurisdictional separations categories compiled in the ARMIS 43-04 report – are likely no longer accurate due to the FCC’s order freezing category relationships and separations factors as of 2000. *Jurisdictional Separations and Referral to the Federal-State Joint Board*, CC Docket No. 80-286, Report and Order (Rel. May 22, 2001). As described in Section IV.A. below, the RBOCs themselves again have recently warned about the inaccuracy of ARMIS data in light of this freeze order. Mr. Garzillo has not indicated whether he has used the frozen factors or whether the separations factors he has used have been updated to reflect current study data; nor can we ascertain whether they have been updated from the public record information.

10. Moreover, putting aside these data issues, as shown below in Section IV.B., Mr. Garzillo’s calculation of the purported costs associated with the provision of UNE loops and UNE-Platform (the numerator in Mr. Garzillo’s development of unitized costs) are tainted by errors in the calculation of loop investment, switch investment, transport investment, non-plant specific expenses and non-recurring costs. Further, as demonstrated in Section IV.C., Mr. Garzillo’s calculations of loop count (the denominator in his development of unitized costs) have understated severely the number of loops associated with these costs, which results in an overstatement of unit costs.

### **III. EMBEDDED COST DATA ARE IRRELEVANT**

11. To begin with, the comparison between purported UNE rates and costs developed from ARMIS records that underlies Mr. Garzillo’s analyses is meaningless. ARMIS data are records of the RBOCs’ book or embedded costs, maintained as required by the Commission’s uniform system of accounts. These data are close to irrelevant for any rational determination of

forward-looking costs of UNEs, *inter alia*, because ARMIS records include assets that (1) no longer even exist at any identifiable location in the RBOC's network; (2) are now excessive, inefficient or obsolete; (3) the RBOC may have discontinued using without removing from the company's account books (e.g., copper cable that has been "overlaid" by fiber cable and taken out of service); or (4) are used jointly or in common not only to provide UNEs, but also to provide other non-UNE or non-regulated outputs, such as long distance or broadband service, and, as a result, reflect a network design that may not be efficient for UNEs.

12. Indeed, the RBOCs themselves have recognized the limitations of ARMIS data. In an effort to downplay the significance of enormous returns that the RBOCs are realizing from their special access services – as reflected in the differences between prices and embedded costs – the RBOCs, including Verizon, recently emphasized the limitations of these data, admonishing:

. . . category-specific data from the FCC's Automated Reporting Management Information System ("ARMIS") . . . contain arbitrary allocations that are "economically irrational." The FCC long ago concluded that the category-specific data reported in ARMIS "does not serve a ratemaking purpose." The FCC has referred to the cost-allocation rules as "outdated regulatory mechanisms that are out of step with today's rapidly-evolving telecommunications marketplace" and has indicated that reducing "regulatory reliance on earnings calculations based on accounting data is essential to the transition to a competitive marketplace." Indeed, the FCC has not imposed rate-of-return regulation for years, and the formal cost-allocation scheme has become obsolete.<sup>1</sup>

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<sup>1</sup> *In re AT&T Corp. et al.*, D.C. Cir. No. 03-1397, Response of Intervenors in Opposition to the Petition for a Writ of Mandamus, at 13 (footnotes omitted) (filed January 9, 2004).

**IV. VERIZON'S ANALYSIS IS DEMONSTRABLY FLAWED AND CANNOT BE RELIED UPON**

**A. Data Reflecting Embedded Costs Are Inappropriate To Estimate Forward-Looking Costs And, In Any Event, The Data Relied Upon By Verizon Do Not Even Properly Reflect The Specific Embedded Costs Of Providing UNEs.**

13. For reasons explained by other witnesses, the RBOCs' *embedded* costs, even if calculated properly, would not provide an appropriate basis on which to estimate *forward-looking* costs.<sup>2</sup> In addition, the data relied upon by Verizon in its analysis do not even properly reflect the BOCs' embedded costs of providing UNEs. To our knowledge, Verizon does not have any comprehensive UNE-specific embedded data. And certainly, the ARMIS data relied upon by Mr. Garzillo do not constitute UNE-specific embedded data. Therefore, as described below, the UNE costs developed by Verizon are based on flawed allocations of its embedded costs to provide *all* of its services (e.g., non-switched, and data services) to the UNE portion of its business.

14. To begin with, in at least two instances, Mr. Garzillo inappropriately applies the separations methods used to allocate *interstate* investments among plant categories to estimate the total of *intrastate and interstate* investments. This approach is unnecessary and appears to introduce additional error because the ARMIS 43-04 report provides these investment figures directly in the "subject to separations" column.<sup>3</sup> In addition, Mr. Garzillo equates Part 36 message trunk (non-loop) investment carrying interstate and intrastate calls with UNE common transport investment. Common and dedicated transport investment are not quantified

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<sup>2</sup> See, e.g., Declaration of Robert Willig at ¶¶ 19-31; Declaration of John C. Klick at ¶¶ 17-28.

<sup>3</sup> Indeed, if performed properly, Mr. Garzillo's calculations should close to the equivalent "subject to separations" figure reported directly in the 43-04. But it does not, and there is no way to determine what might be the source of this inconsistency.

individually in the 43-04 report, and there is no way to determine whether Mr. Garzillo's combined figure is an accurate proxy for UNE common transport.

15. Furthermore, the interstate separations factors that are the basis for Mr. Garzillo's data relationships are developed from the ARMIS 43-04 report. These relationships are likely stale and no longer accurate due to the FCC's order freezing, as of 2000, (1) the relationships between categories of investment and expenses within Part 32 accounts and (2) the jurisdictional allocation factors. *Jurisdictional Separations and Referral to the Federal-State Joint Board*, CC Docket No. 80-286, Report and Order (Rel. May 22, 2001). In their recent warning about the limitations of ARMIS data, the RBOCs specifically cited the Commission's freeze order.<sup>4</sup> Mr. Garzillo has not indicated whether or not he has updated the category relationships and the separations factors; nor can we ascertain whether they have been updated from the public record information.

**B. Verizon's Calculations Of The Purported Costs Associated With The Provision Of UNE Loops And The UNE Platform Are Tainted By Numerous Errors.**

16. Even putting aside these data issues, Mr. Garzillo's calculation of the costs associated with the provision of UNE-Loops and UNE-Platforms (the numerators in Mr. Garzillo's development of unitized costs) are permeated with errors, in the calculation of loop investment, switch investment, transport investment, non-plant specific expenses and non-recurring costs. For the purpose of illustrating these errors, we will use as examples Mr.

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<sup>4</sup> *In re AT&T Corp. et al.*, D.C. Cir. No. 03-1397, Response of Intervenors in Opposition to the Petition for a Writ of Mandamus, at 13 n. 52 (filed January 9, 2004) ("The FCC's separations costing process has not been used to set interstate rates for price-cap LECs since 1990, and the FCC recently decided to 'freeze' many of the factors at the heart of jurisdictional separations, noting that many recent advances have 'blurred' the line between services").

Garzillo's calculations for Massachusetts (which are methodologically identical to his calculations for New Jersey, New York and Pennsylvania).

17. Mr. Garzillo's estimates of the unit costs incurred in providing UNE loops and the UNE-Platform ("UNE-P") rest on numerous assumptions and calculations reflected in twenty-five pages of worksheets. Mr. Garzillo's analysis, and the worksheets underlying it, can be viewed as a pyramid, with his ultimate rate/cost comparisons (reflected in his "Shortfall" Worksheet), built on a layer of assumptions and calculations (such as those reflected in his "Cost-Avoided" Worksheet), which are, in turn, based on another layer of assumptions and calculations (such as those reflected in his "Calculations" Worksheet), which are, in turn, based on a layer of calculations and selected ARMIS data (such as those reflected in his "43-04" and "43-03" Worksheets). Given this structure, any inconsistencies, conflicts and errors in the many layers underlying the ultimate cost estimates necessarily taints those results.

### **1. Loop Investments**

18. Mr. Garzillo's estimates of loop investments are marred by numerous inconsistencies and errors, including the following. Starting from the bottom of the pyramid, several key inputs for Mr. Garzillo's loop investment estimates are derived from FCC Report 43-04, the ARMIS Access Report. *See* Garzillo Decl. Attachment A\_Public.xls. In estimating "Loop Investments as Percentage of C&WF [Cable & Wire Facilities]," Mr. Garzillo assumes *all* wideband C&WF should be attributed to Loop Investment.<sup>5</sup> This assumption conflicts with other of Mr. Garzillo's ARMIS data that state that Wideband Exchange Line Central Office

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<sup>5</sup> *See* 43-04 Worksheet, Attachment A\_Public.xls, Line 31, calculating Loop Investment by adding Line 16 (Category 1, Exchange Line Investment) and Line 23 (Category 2, Wideband Investment).

Circuit Equipment (Cat 4.11) investment is *zero*. Because wideband deployment usually requires both C&WF and Circuit equipment, to report zero Circuit investment but over a billion dollars (\$1,090,531,000) for Massachusetts of C&WF investment for wideband loops makes no sense.

19. This flaw is further shown in the calculation on the 43-04 Worksheet, Line 34, “Loop Investments as Percentage of COE Circuits. Here Cat 4.13 Exchange Line Circuit Equipment is referenced. But, according to Part 36 definitions, Cat 4.13 Central Office Equipment (“COE”) excludes wideband investment. Again, Mr. Garzillo appears to be assuming that there is no wideband circuit investment in Verizon MA’s loops – despite the fact that Verizon’s ARMIS submissions report over one billion dollars of wideband C&WF investment in its Massachusetts loop costs.

20. These errors and inconsistencies from the 43-04 Worksheet then directly infect Mr. Garzillo’s subsequent loop investment calculations reflected in his “Calculations” Worksheet. In particular, the data from Lines 31 and 34 of 43-04 Worksheet, and their associated errors and inconsistencies described in the preceding paragraphs, are carried forward into Lines 1, 3 and 10 of the Calculations Worksheet.<sup>6</sup> The infected calculations from these Lines are then used as the basis for other calculations, such as Calculations Worksheet, Line 12 (relying on the calculation from Line 10), which are themselves used as the basis for still other calculations, such as Calculations Worksheet, Line 14.<sup>7</sup> In calculating “Cable & Wire/COE Ckt/IOT Investment per loop,” Mr. Garzillo again treats *all* of this category’s C&WF wideband

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<sup>6</sup> See Calculations Worksheet, Attachment A\_Public.xls, Lines 1, 3 & 10.

<sup>7</sup> See Calculations Worksheet, Attachment A\_Public.xls, Line 12 & 14,

investment as loop plant,<sup>8</sup> even though *none* of the corresponding Central Office Circuit Equipment is treated as loop plant. The inconsistencies and errors in Lines 1, 3, 12 and 15 of the Calculations Worksheet are, in turn, carried forward into the “Cost-Avoided” Worksheet, Lines 5, 7, 13 and 15.<sup>9</sup>

## 2. Transport Investment

21. Mr. Garzillo’s estimates of transport investment costs are also flawed. For example, in calculating “Common Transport [Cable Wire & Facilities] Investment,” Mr. Garzillo uses *interstate* values to compute an equivalent “Subject to Separations” figure – i.e., interstate *plus intrastate*.<sup>10</sup> As described above, the interstate values used by Mr. Garzillo are suspect because of the data freeze in effect beginning in 2000. Moreover, the allocation used by Mr. Garzillo is unnecessary because this Common Transport investment figure (Line 32) should be just the sum of Lines 18, 19, 26 and 27 (i.e., rows 1471, 1472, 1497 and 1498). The flaws in Line 32 are carried forward into Line 33.

22. Mr. Garzillo’s estimate of “Common Transport [Central Office Equipment] Circuit Investments” is similarly flawed. Again, Mr. Garzillo uses *interstate* ratios to compute a “Subject to Separations” figure – i.e., interstate *plus intrastate*.<sup>11</sup> Not only are the interstate values suspect because of the data freeze, but the allocation used by Mr. Garzillo is unnecessary because this Common Transport investment figure (Line 35) should be just the sum of rows

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<sup>8</sup> See Calculations Worksheet, Attachment A\_Public.xls, Line 15, using Worksheet 43-04 Line 8 (total Cat 4.13 C&W, row 1290), Line 16 (total Cat 1 Exch Line C&W, row 1460), and Line 21 (total Cat 2 C&W Wideband Private Line, row 1480).

<sup>9</sup> See Cost Avoided Worksheet, Attachment A\_Public.xls, Lines 5, 7, 13 and 15.

<sup>10</sup> See 43-04 Worksheet, Attachment A\_Public.xls, Line 32.

<sup>11</sup> See 43-04 Worksheet, Attachment A\_Public.xls, Line 35.

1231, 1232 and 1338 (the last of these, Interexchange Cat 4.23-Joint, is not shown on Mr. Garzillo's worksheet but is available in the underlying ARMIS report). The flaws in Line 35 are carried forward into Line 36.

23. The foregoing errors are then carried forward into the Calculations Worksheet.<sup>12</sup> These flawed calculations are then reflected in Mr. Garzillo's Cost-Avoided Worksheet.<sup>13</sup>

### 3. Switching Investment

24. Mr. Garzillo's estimates of switching investment are also flawed. For example, in estimating "Monthly Non-Plant Specific-Switch Portion," two COE Ckt (Account 2230) amounts are included that are *not* Switching (Account 2210) investment.<sup>14</sup> Moreover, as part of this same Switching investment estimate, Intangibles (Account 2690) are included *in their entirety*, even though Account 2690 includes *non-switching* software.<sup>15</sup> These errors in Line 8 on Mr. Garzillo's Calculation Worksheet are carried forward into Lines 9, 12, 13 and 14 of that

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<sup>12</sup> See Calculations Worksheet, Attachment A\_Public.xls, Lines 2 and 11, using 43-04 Worksheet Line 33; Calculations Worksheet, Attachment A\_Public.xls, Line 18, using 43-04 Worksheet Line 32; Calculations Worksheet, Attachment A\_Public.xls, Line 13, using Calculations Worksheet Line 11.

<sup>13</sup> See Cost Avoided Worksheet, Attachment A\_Public.xls, Lines 6 and 14, using Calculations Worksheet Lines 2 and 13, respectively.

<sup>14</sup> See Calculation Worksheet, Attachment A\_Public.xls, Line 8, using Worksheet 43-04 Lines 4 & 10.

<sup>15</sup> See Calculation Worksheet, Attachment A\_Public.xls, Line 8, using Worksheet 43-03 Line 24. This same error (treating 43-03 Worksheet Line 24, Account 2690, as *all* switching) also causes Mr. Garzillo's calculations of "Switching investment per line" (Calculations Worksheet, Line 16) and "Support investment per line" (Calculations Worksheet, Line 17) to be erroneous. Other software in Account 2690 can be network, other than switching and general purpose computer applications software. Yet, Mr. Garzillo fails to include the support portion of this Account in his calculation of Support Investment per line. This error in Support Investment is then carried forward into Mr. Garzillo's capital cost calculations for loops, switches *and* transport. See Cost-Avoided Worksheet, Attachment A\_Public.xls, Lines 23, 24 and 25.

Worksheet. These erroneous calculations, in turn, are carried forward into Mr. Garzillo's Cost-Avoided Worksheet, Lines 12, 13 and 14.

#### 4. Non-Plant Specific Expenses

25. Verizon's methodology for estimating "Monthly Non-Plant Specific Expenses per line" (Line 7 of the Calculations Worksheet) is also flawed and produce wide variations in unit costs among its state operations. To begin with, Mr. Garzillo includes rental *revenues* (taken from the 43-03 Worksheet, Line 36) in his estimate of *expenses*. It plainly makes no sense to include rental revenues as expenses, because the expenses for the corresponding network facilities that are being rented, such as the poles, underground conduit, building and collocated space, are already included in the loop, switching, transport and non-plant specific expenses, as mentioned above. Therefore, Mr. Garzillo double-counts these "expenses."

26. Mr. Garzillo also includes retail uncollectibles (taken from the 43-03 Worksheet, Line 46) in his estimate of "Monthly Non-Plant Specific Expenses per line" and includes these in the development of the UNE Non-Plant Specific costs ("Calculation" worksheet, Line 7).<sup>16</sup> Verizon calculates retail uncollectibles by multiplying total uncollectibles by (1 - wholesale revenues divided by total revenues). Verizon's wholesale revenue equals 24.28% of total revenues (43-03 Worksheet, Line 44), which has been developed by dividing miscellaneous and special access revenues by total revenues. This underestimates wholesale revenue because it includes only the special access portion of network access revenues as wholesale. All categories of network access revenues should be considered wholesale. Adjusted for this correction,

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<sup>16</sup> We do not understand why *retail* uncollectibles should be a component of wholesale UNE costs. But even if Mr. Garzillo wishes to use it as a proxy for *wholesale* uncollectibles, he has not used it properly.

wholesale revenues increase, calculated retail uncollectibles decline, and based on Mr. Garzillo's methodology the UNE Non-Plant Specific Expenses per line decrease.

27. Verizon's own figures admit that its embedded non-plant specific expenses in Massachusetts (\$21.76) are substantially higher than non-plant specific expenses in Pennsylvania (\$13.55) and New Jersey (\$13.62), and lower than such expenses in New York (\$25.57).<sup>17</sup> Verizon's non-plant specific expenses in Massachusetts thus exceed such expenses in Pennsylvania and New Jersey by 60.6% and 59.8%, respectively. The following table depicts the substantially higher non-plant specific expenses per loop for Verizon MA and NY relative to their sister companies, Verizon PA and NJ. In *every* operating expense sub-category (excluding operating other taxes) Verizon PA and NJ have unit costs at least 18% below Verizon MA.

**Components of Monthly Non-Plant Specific Expenses per Loop – 2002**  
**Garzillo Attachment A-Worksheet 43-03 / Worksheet 43-08 (line 10)**

	VZ-MA	VZ-NY	VZ-PA	VZ-NJ
Network Support \$	0.03 \$	0.06 \$	0.02 \$	0.02
General Support \$	2.57 \$	2.55 \$	1.78 \$	1.75
Other PP&E Expense \$	0.04 \$	0.01 \$	0.02 \$	0.02
Network Operations \$	3.93 \$	4.30 \$	0.98 \$	1.22
Marketing Expense \$	1.72 \$	1.98 \$	1.30 \$	1.29
Services Expense \$	3.76 \$	3.80 \$	2.30 \$	2.13
Executive and Planning \$	0.30 \$	0.33 \$	0.24 \$	0.24
General & Administrative \$	7.23 \$	9.84 \$	5.35 \$	5.50
Operating Other Taxes \$	1.46 \$	3.98 \$	1.63 \$	1.04
Rent \$	2.12 \$	6.08 \$	2.77 \$	1.49
Total Miscellaneous \$	3.59 \$	8.93 \$	4.03 \$	2.25
Uncollectible-Retail \$	2.18 \$	1.58 \$	1.20 \$	1.18
Total Non-Plant Specific \$	21.76 \$	25.57 \$	13.55 \$	13.62

28. These data presented by Mr. Garzillo provide strong evidence that Verizon-MA's current operations are very inefficient, and that its ARMIS data are not helpful for establishing the forward-looking costs of providing UNEs.

<sup>17</sup> See Calculation Worksheet, Attachment A\_Public.xls, Line 7.

29. The fact that Verizon-MA's non-plant specific expenses are much greater than these expenses for other Verizon states (NJ and PA) belies any presumption that Verizon-MA is now operating efficiently. Unlike the plant specific expenses (switching, COE circuit and outside plant), the non-plant specific expenses (general and network support, marketing, customer service, executive and planning, and general and administrative expenses) include many activities that do not need to be conducted in Massachusetts, but could be handled in other states such as New Jersey and Pennsylvania (or outsourced elsewhere), where Verizon estimates costs to be lower.<sup>18</sup> We are thus perplexed why, six years after the 1996 Bell Atlantic/NYNEX merger, such large disparities between the companies remained in 2002. Indeed, the disparity between Verizon-MA's non-plant specific expenses and those incurred by Verizon-PA and -NJ grew substantially between 1996 and 2002 – a period during which Verizon-MA's non-plant specific expenses *increased* while such expenses for Verizon PA and NJ *declined* substantially. This trend both demonstrates that Verizon-MA appears not even to be moving in the direction of becoming a more efficient carrier,<sup>19</sup> and also illustrates the fallacy of using embedded cost data as the basis for evaluating the reasonableness of UNE rates, which must be based on the forward-looking costs of an efficiently operated carrier.

## 5. Non-Recurring Costs

30. There is an additional inconsistency in Mr. Garzillo's loop investment calculations reflected in his Cost-Avoided Worksheet. Verizon divides nonrecurring revenues

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<sup>18</sup> Indeed, the disparity between Verizon NY's level of efficiency and that of Verizon NJ and PA is even more striking.

<sup>19</sup> We understand that numerous ILECs in this proceeding have asserted that price cap regulation should by now have caused them to be operating at the highest possible levels of efficiency. These Verizon-reported data undercut this suggestion.

\$103,610,000 (an amount whose source is undocumented on Line 35) by 4,239,936 loops to produce \$2.04 for the non-recurring portion of UNE loop costs.<sup>20</sup> This method differs from the one described in Paragraph 20 of Mr. Garzillo's Declaration: "we took the total wholesale non-recurring revenues in each year as a proxy for non-recurring costs, divided that by the average number of UNE loops and UNE-platforms in the corresponding year, and subtracted that per line amount from the total per loop wholesale cost." Indeed, if Mr. Garzillo's description is applied (that is, wholesale non-recurring revenues are divided by the average UNE loops and UNE-platforms), the nonrecurring revenues per UNE loop become \$4.58 – \$2.54 more per loop – which in turn lowers the unit loop costs by \$2.54.

## **6. Flaws In Projecting Annual Shortfalls**

31. As mentioned earlier, Mr. Garzillo's analysis, and the worksheets underlying it, can be viewed as a pyramid, with his ultimate rate/cost comparisons (reflected in his "Shortfall" Worksheet), built on multiple layers of assumptions and calculations that are based on selected ARMIS data. Given this structure, the inconsistencies, conflicts and errors in the many underlying layers, as described above, seriously affect his calculations of Verizon's shortfalls. These errors are compounded by two factors in his calculation of an annual "shortfall." First, the methodology Mr. Garzillo used to project UNE quantities in his shortfall calculations is not documented and, by the description contained in paragraph 31 of his Declaration, the methodology violates fundamental forecasting principles. Second, the methodology used to project UNE costs assumes that Verizon's unit costs will remain constant at the 2002 levels in future years. This assumption is contrary to Verizon's well known claims that it expects to improve its future efficiency.

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<sup>20</sup> See Cost-Avoided Worksheet, Attachment A\_Public.xls, Line 28.

32. In the Shortfall Worksheet, the difference between the TELRIC Rates for UNE-P/UNE-L and the recurring cost per UNE-P/UNE-L is multiplied by projected loops in 2003, 2004 and 2005 for UNE-P and UNE-L in the “UNE Projection-MA” Worksheet. Mr. Garzillo explains his methodology to project UNE-P and UNE-L as follows:

[W]e looked at the monthly UNE loop and UNE-P volumes for each state from 1997 through September 2003, and determined the historical growth trends for UNE loops and UNE-Ps during that period. We then used that information to project estimated demand for UNE loops and UNE-Ps in each state. In calculating these projections, we did not try to account for price reductions that are set to take effect, or for market conditions or other factors that may affect UNE loop volumes.

33. Documentation of the forecasting algorithms and results were not provided. Mr. Garzillo apparently looked at the simple trends and estimated demand. Mr. Garzillo has provided no theoretical, empirical or structural support for his projections. Furthermore, the fundamental determinants of a demand estimate are absent from his projection, because he explicitly states that “price reductions and market conditions and other factors” were not even considered. For example, Mr. Garzillo does not take into account the effect on UNE growth of actions that Verizon may take to respond to CLECs, like the bundling of local, long distance and vertical call services into packages with discounted rates. Mr. Garzillo’s estimates in the UNE Projection-MA Worksheet indicate that the combined UNE-P/UNE-L counts increase in 2003 by 50%, 2004 by 127% and 2005 by 161% over 2002 levels. These alleged large growth rates in UNE quantities significantly increase and affect his shortfall calculation. Because these UNE-P/UNE-L projections are unsupported, the ensuing related shortfalls in 2003, 2004 and 2005 cannot be relied upon.

34. When forecasting the shortfall, Mr. Garzillo assumes that “Verizon’s monthly recurring costs stay the same over the next several years.” This assumption is inconsistent with the views stated by Verizon’s senior management. As a consequence of Verizon’s recent employee reductions, and other cost-saving measures taken in recent years, Verizon has announced to the investment community that there will be substantial future cost savings. These cost savings should certainly lower their monthly recurring costs over the next several years.

**C. Verizon Has Understated The Number Of Loops.**

35. Verizon’s historical cost study purports to identify all costs in providing UNEs to CLECs from the various ARMIS reports on a “per loop” basis. However, Verizon’s analysis includes investments and costs well beyond those associated only with the provision of UNEs to CLECs. Embedded in Verizon’s cost numerators are costs associated with non-UNE-P or UNE-L services (such as non-switched special access services and packet and other data services). However, inconsistent with the scope of the costs that it includes in its calculations, not all of the loops generating these costs are included in Verizon’s process for calculating unitized costs.

36. In particular, Verizon’s loop-count completely omits three relevant categories of loops and undercounts severely special access lines. First, Verizon omits all of its 210,521 Massachusetts UNE lines (average 2002 UNE Platforms and UNE Loops reflected in Mr. Garzillo’s UNE Projection-MA Worksheet). Second, Verizon omits the 153,528 DSL lines that it provides in Massachusetts (average of its December 2001 count of 125,630 and December 2002 count of 181,426 for Massachusetts reported in Table 9 of the FCC’s *Report on High Speed Service for Internet Access* dated June 30, 2003). Third, Verizon omits its 325,258 Resold Loops (identified in Table 8 of the FCC’s *Local Competition Report* dated June 30, 2002). Finally,

Verizon considers only 1 out of every 24 of its 1,887,047 Massachusetts special access lines to be a loop equivalent.

37. To demonstrate the significance of these undercounts of loops and the resulting inconsistency between Verizon's numerator and denominator, we calculate several better measures of loops that include all switched, non-switched, resold and UNE loops. These figures are set forth in Attachment 1 hereto and are summarized below. Each of these methods provide loop-count denominators that are substantially higher than the figure used by Verizon.

38. If we first correct the obvious undercount of special access lines by including these lines at the voice-grade equivalent levels specified in the ARMIS 43-08 report,<sup>21</sup> and add back in the omitted UNE, resale and raw DSL lines, the total calculated denominator becomes 6,737,662 loops – a figure 58.9% higher than Verizon's proffered loop count. If we were to count all of Verizon's lines (including DSL) on the basis of their voice-grade equivalents, the figure for Verizon MA's total loops would rise to 9,749, 636 – a figure that is 129.9% higher than Verizon's proffered loop count.<sup>22</sup>

39. Mr. Garzillo's calculation of the quantity of loops is also flawed by his adjustment to remove PRI and BRI Control Channels from his figure for "Total Switched Access Lines." This calculation is in Attachment A\_Public.xls of his Declaration. Mr. Garzillo does not provide

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<sup>21</sup> It is impossible to provide most special access services on a single two-wire loop.

<sup>22</sup> Verizon's Investor Quarterly 4th Quarter 2002 available at (<http://investor.verizon.com/financial/quarterly/VZ/4Q2002/4Q2002.pdf>) states that that Verizon served 135,797,000 total voice grade equivalents at year-end 2001 and 129,994,000 voice grade equivalents at year-end 2002. This provides an average figure of 132,895,500 for 2002. We estimate the fraction of this figure attributable to Verizon-MA by noting that Verizon-MA constitutes 7.34% of all of Verizon's 2002 switched lines (based on information found at [http://investor.verizon.com/business/xls/access\\_lines-3q-03.xls](http://investor.verizon.com/business/xls/access_lines-3q-03.xls)). Multiplying this fraction by the total company's voice-grade equivalents yields an estimate of 9,749,636 for Verizon-MA.

an explanation or description of this calculation elsewhere in his Declaration. The source for Mr. Garzillo's "Total Switched Access Lines" quantity is the FCC ARMIS 43-08 Report, Column fi. However, the Commission's instructions for Column fi do not specify that PRI or BRI Control Channels are to be included with the "Total Switched Access Lines" reported. Therefore, it is not clear whether or not Verizon has included PRI or BRI Control Channels in its switched access lines count. If they were not included in the switched access lines reported in ARMIS by Verizon, Mr. Garzillo's removal of these lines is clearly an inappropriate adjustment that understates the quantity of loops which results in an overstatement of unit costs.

40. Furthermore, assuming that Verizon did include PRI and BRI Control Channels in its ARMIS counts of total switched access lines, Mr. Garzillo has overstated the equivalent PRI and BRI Control Channels that he has subtracted from this figure. In Attachment A\_Public.xls, Mr. Garzillo multiplies the number of PRI and BRI control channels (on lines 5 and 6, respectively) by the number of DS0 equivalents (on lines 7 and 8, respectively). These "equivalent" lines are subtracted from the total switched lines. Mr. Garzillo references the quantity of "Total PRI Control Channels" and "Total BRI Control Channels" to Columns co and cn, respectively, of the ARMIS 43-08 Report. However, the instructions for these columns specify that the control channels should be reported as 64 Kbps equivalents. Therefore, Mr. Garzillo has multiplied lines that have been reported as equivalents by the equivalency factors (for example, the number of PRI Control Channels were converted into 64 Kbps equivalents when they were reported in ARMIS and were multiplied again by 23 by Mr. Garzillo). This clearly overstates the equivalent control channels that he removed from Total Switched Access Lines and, therefore, overstates the resultant unit costs.

41. For all of the foregoing reasons, it is clear that when costs and loop counts are estimated on a comparable basis, the resulting loop-count will be substantially higher than that calculated by Verizon. This larger loop count spread over the embedded costs estimated by Verizon, significantly reduces its calculation of a figure that purportedly represents its monthly recurring cost per UNE line.

**VERIFICATION PAGE**

I declare under penalty of perjury that to the best of my knowledge the foregoing  
Declaration is true and correct.

/s/ Arthur S. Menko  
Arthur S. Menko

Executed on: January 30, 2004

**VERIFICATION PAGE**

I declare under penalty of perjury that to the best of my knowledge the foregoing  
Declaration is true and correct.

/s/ John McCloskey  
John McCloskey

Executed on: January 30, 2004

**VERIFICATION PAGE**

I declare under penalty of perjury that to the best of my knowledge the foregoing  
Declaration is true and correct.

/s/ Thomas L. Brand  
Thomas L. Brand

Executed on: January 30, 2004

<u>Line</u>	<u>Item</u>	<u>Source</u>	<u>Avg. 2002</u>
1	Total Switched & Special Access	ARMIS 4308 Column fl	6,142,105
2	Total Switched Access Lines	ARMIS 4308 Column fi	4,255,059
3	Total Special Access Lines	Line 1 - Line 2	1,887,046
4	Total Local Private Lines	ARMIS 4308 Column fm	81,784
5	Total PRI Control Channels	ARMIS 4308 Column co	5,597
6	Total BRI Control Channels	ARMIS 4308 Column cn	52,411
7	DS-0 Equivalents for PRIs	Line 5 x 23	128,720
8	DS-0 Equivalents for BRIs	Line 6 x 2	104,822
9	Actual Switched Access Lines	L2 - (L8-L6) - (L7-L5)	4,079,525
10	UNE L and UNE P	Verizon Attachment A.xls <sup>1</sup> -	210,521
11	Resold Lines - June 2002 FCC Local Competition Report	FCC Report - Local Competition <sup>2</sup> -	325,258
12	Average ADSL	FCC Report - High Speed Report <sup>3</sup> -	153,528
13	Verizon Defined Loops	L9 + L4 + (L3/24)	4,239,936
14	Alternate Loop Count 1	L9 + L4 + L3 + L10 + L11 + L12	6,737,662
16	Alternate Loop Count 2	see Worksheet VGE Method	9,749,636

1 Verizon Attachment A.xls - UNE Projection MA tab

2 FCC Report - Local Competition - 6/30/02 - Table 8

3 FCC Report - High Speed Service for Internet Access -  
6/30/02 - Table 9

<u>Line</u>	<u>Item</u>	<u>Source</u>	<u>2002</u>	<u>2001</u>	<u>Average</u>
1	Verizon Total - Switched Lines	Verizon's Website <sup>1</sup>	57,973,842	60,202,933	59,088,388
2	Verizon MA - Switched Lines	Verizon's Website	4,215,554	4,454,270	4,334,912
3	MA Allocated Share of Lines	Line 1 / Line 2			7.34%
4	Verizon Total VGEs	Verizon Investor Quarterly <sup>2</sup>	135,797,000	129,994,000	132,895,500
5	Estimated MA VGEs	Line 3 * Line 4			9,749,636

1 Verizon's Website - [http://investor.verizon.com/business/xls/access\\_lines-3q-03.xls](http://investor.verizon.com/business/xls/access_lines-3q-03.xls)

2 Verizon Investor Quarterly - Verizon Investor Quarterly 4Q 2002